



BENEFITS OF INTELLECTUAL TRANSPORTATION SYSTEMS IN REDUCING ROAD TRANSPORT INCIDENTS

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Annotation: According to the information published by the government of Uzbekistan, a total of 10,001 traffic accidents occurred in Uzbekistan in 2021. In total, more than 2425 people died in road traffic accidents, and the number of injured people exceeded 9230. Most of the traffic accidents that occurred resulted in death or serious injury. This article talks about the causes of traffic accidents in Uzbekistan and ways to eliminate them.

Key words: Traffic accidents, traffic jams, traffic lights, road signs.

Introduction: Traffic is a major problem in developed and developing countries. Each country has its own rules and laws for traffic control. In the last decade, the density of vehicles, traffic, congestion and accidents on the roads have increased. To control traffic and reduce traffic accidents, traditional methods are used in our country, i.e. traffic lights, road signs, road patrol service. But these methods are becoming obsolete day by day. In the era of technology, intelligent and flexible equipment must be used to manage traffic and reduce accidents. In the Republic of Uzbekistan, in recent years, a number of decisions aimed at ensuring road safety, preventing road traffic accidents, and reducing the number of dead and injured people have been adopted. In particular, the decision PQ-190 of the President of the Republic of Uzbekistan, adopted on 04.04.2022, "On measures to reliably ensure the safety of people on the roads and drastically reduce the number of deaths" is one of them. According to the decision, in 2022-2025, full digitization of traffic management, introduction of advanced information and communication technologies, introduction of new management and control systems are set as one of the priority goals [1].

Literature analysis and methodology: Causes of road traffic accidents in Uzbekistan Road traffic accidents can lead to a number of dire consequences, including death, serious injuries, loss of income, etc. In 2021, 1,150 accidents (11.5%) related to hitting pedestrians crossing pedestrian crossings, 1,380 accidents (13.8%), 2,009 accidents due to pedestrians crossing an unmarked part of the road due to traffic management problems (20.1%), 501 (5%), accidents caused by leaving



children unattended, 610 (6.1%) cyclists moving in areas without a bicycle lane, 402 (4%).) following drivers who did not obey traffic lights or traffic signs, 912 (9.1%) due to inexperience of drivers, 792 (7.9%) driving in the opposite direction, 100 (1%) using the phone while driving 2010 accidents (20.1%) were caused by non-observance of the specified speed limit, 135 (1.4%) were caused by driving under the influence of alcohol. Analysis by age and gender of drivers causing traffic accidents Analysis by age of drivers causing traffic accidents in 2021 (Figure 1), drivers over 40 years of age have the most accidents of total accidents (27.6%), 25-30-year-old drivers (20.6%), drivers under 25 years old. Accidents (20%), accidents caused by drivers under the age of 30-35 (18.2%) and drivers under the age of 35-40 (13.6%) caused traffic accidents. Analysis of the age of drivers who committed traffic violations in Uzbekistan in 2021 [2].

Causes of road traffic accidents in Uzbekistan There are several reasons for the occurrence of traffic accidents in Uzbekistan, as well as in other developed and developing countries, some of them are listed below. The main causes of accidents are divided into 2 types. A. Due to the organizing bodies of the movement. B. Due to the fault of road users. A. Due to the organizing bodies of the movement. (i) Inadequate lighting system on highways. Inadequate lighting devices on the internal and main expressways of Uzbekistan cause an increase in road traffic accidents on these roads at night. (ii) Lack of adequate road markings. Road signs are necessary to warn drivers about turns, speed limits, etc., which help drivers while driving. (iii) Intersections. There are many intersections on the roads of Uzbekistan. In many cases, intersections on the roads of Uzbekistan join the main road at an angle of 90° , and this is very dangerous when joining the main road. B. Due to the fault of road users. (i). Speed. Another main cause of traffic accidents is speeding. Many drivers drive 30-40 km/h over the speed limit, and this situation is common on highways. One third of traffic accidents occur due to speeding. (ii). Distraction while driving. A distracted driver is not someone who runs a red light or drives drunk. A distracted driver is a driver who takes their attention off the road, usually by talking on a cell phone, talking to passengers, texting or eating, or even putting on makeup. In order to drive the car safely, the driver must pay full attention to the road. Whether it's talking on a cell phone or texting a friend, drivers who are distracted end up putting the lives of other drivers or pedestrians at risk. Distracted driving is dangerous because while drunk driving usually happens at night, accidents caused by distracted drivers can happen during the day. Teenagers are often distracted while driving [3].



Studies have shown that teenagers are more likely to use cell phones while driving than adults. (iii). Drunk driving. Alcohol impairs people's ability to concentrate and work properly. It is dangerous for the driver to control the vehicle. (iv). Failure to provide timely technical service to vehicles. Although the first cause of car accidents is the error of drivers, the lack of timely maintenance of cars causes the number of road traffic accidents to increase every year. (c). Other reasons. Driving in the opposite lane, making wrong turns, defects in the vehicle, mistakes in overtaking, disobeying a red light signal, and many other reasons lead to fatal traffic accidents. The role of intelligent transport systems in the prevention of accidents. Most of the transport work of developed countries is managed with the help of ITS. The main purpose of ITS is to provide human safety, environmental protection and convenience for people in transportation [4].

However, there are major challenges in designing cars to make collision avoidance systems work perfectly. ITS systems with the highest safety potential are: - Collision avoidance CA - Automated speed enforcement (ASE) - Speed control systems with variable speed limits (SCSVSL) - Driver and vehicle monitoring systems (DVMS) Systems with the highest safety potential in cities (these systems reduce injuries in car accidents by up to 30 percent when fully operational): - Collision avoidance CA) - Intelligent speed adaptation (Intelligent speed adaptation ISA) - Urban traffic control (Urban traffic control UTC [5].

Conclusions: Common driving errors and inadvertent behavior of pedestrians unfortunately lead to deaths and serious injuries in traffic accidents. Therefore, education on road safety is necessary. Also, good roads with visible right-of-way, well-maintained vehicles and a good traffic system prevent this man-made problem. Driving errors and accidental actions by pedestrians usually lead to death and serious injuries in traffic accidents. Therefore, ensuring road safety is the need of the hour. In addition, sidewalks designed taking into account the movement of pedestrians, vehicles that are maintained on time will prevent potential road traffic accidents. At the same time, it is one of the most effective solutions for the prevention of road traffic accidents, which can occur through the use of intelligent transport systems in modern automobile industry. The widespread use of intelligent transport systems in our country will help to significantly reduce the unpleasant incidents that may occur in the work of motor transport.

**References:**

1. Azimov, S., & Shirinboyev, M. (2022). DEVELOPMENT OF TECHNOLOGY FOR CREATING POLYMERIC COMPOSITE MATERIALS BASED ON POLYVINYLIDENFTORIDE AND DISPERSED FILLERS. *Евразийский журнал академических исследований*, 2(13), 828-835.
2. Abduqayumovna, K. M., & Qayumjon o'g'li, A. S. (2022). MEN SEVGAN YETUK OLIMLAR. *Journal of new century innovations*, 19(5), 125-129.
3. Gulomov, J., Azimov, S., Madaminova, I., Aslonov, H., & Dehqonboyev, O. (2020). IV CHARACTERISTICS OF SEMICONDUCTOR DIODE. *Студенческий вестник*, (16-9), 77-80.
4. Behzod, B., Suhrob, A., & Sarvar, A. (2019). DIFFERENTIAL LEARNING IN PHYSICS. *European Journal of Research and Reflection in Educational Sciences Vol*, 7(12).
5. Qayumjon o'g'li, A. S., & Sulaymonovich, T. S. (2022). DEVELOPMENT OF A MACHINE FOR CUTTING COTTON. *Новости образования: исследование в XXI веке*, 1(5), 192-198.